Questyle
Audio Engineering

CMA Fifteen

DAC with Headphone Amplifier

USER'S MANUAL

www.questyle.com

Contents

About CMA Fifteen

Thank you for purchasing the Questyle Audio CMA Fifteen DAC/Headphone Amp.

The CMA Fifteen is the newest flagship DAC/Headphone Amplifier from Questyle Audio. It inherits Questyle's classic desktop design style and commemorates the anniversary of the revolutionary Current Mode Amplification technology invented 15 years ago.

The CMA Fifteen adopts Questyle's core patented technologies of True DSD, 3X Clock Asynchronous Transmission, and Current Mode Amplification, which together allow the CMA Fifteen to have outstanding performance as both a DAC and pre-amplifier.

The pre-amp output on the back of the device is user-switchable between Fixed and Adjustable mode, allowing it to match with both power amplifiers and active speakers. The CMA Fifteen also supports 4-PIN balanced output on the front of the device.

The CMA Fifteen is designed with four groups of Current Mode amplifiers, producing a forceful driving power and an ultra-low distortion level of only 0.0003%. Together with the high-performance BIAS Control System, this system will bring you an exceptional listening experience for years to come.

To avoid resonance, CMA Fifteen chassis is made of 10mm-thick aircraft grade aluminum 6063 with precision machining tolerance of 0.02mm. Especially the "mutual-bit" structure, silicone material and pure aluminum help to reduce resonance to a lowest level.

FCC Warning
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
· Reorient or relocate the receiving antenna.
· Increase the separation between the equipment and receiver.
· Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
· Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

In the Box

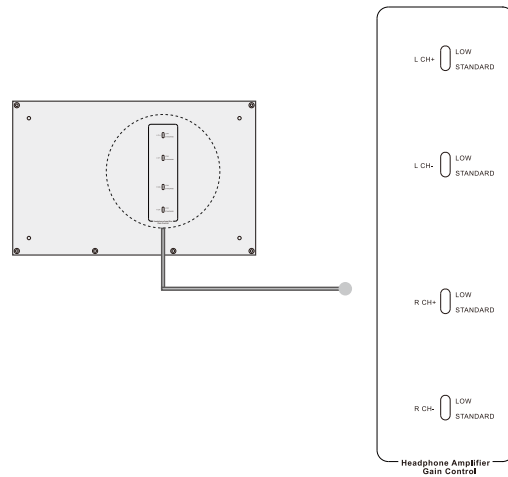|	
CMA Fifteen	1pc
Power Cord	1pc
Remote Control	1pc
CMA Fifteen User Manual	1pc
Warranty Card	1pc
CMA Fifteen Driver CD	1pc
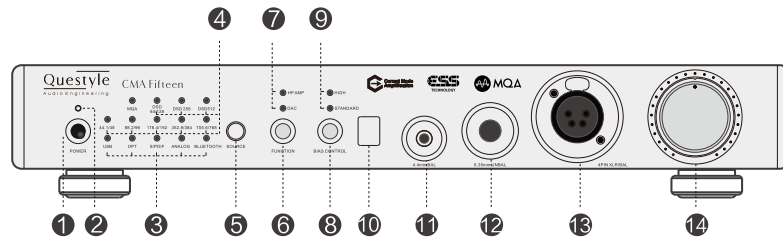
① Power switch.

② Power indicator: Rapid flashing orange light indicates the system is booting up. Steady orange light indicates the system has successfully booted up. Slow flashing orange light indicates the system has been muted. Note: If the indicator flashes quickly with red, this indicates the system is in malfunction. Please switch off the CMA Fifteen, unplug your headphone/speakers, and restart the CMA Fifteen. If the problem is not solved, please contact your dealer or after-sales support.

③ Source indicators: USB, OPT, S/PDIF, ANALOG and BLUETOOTH.

④ Sample rate indicators.

⑤ Source button: Press this button to cycle between the source input options.

⑥ Function switch: Toggles between Headphone Amplifier (HP) and Pre-amplifier (DAC) mode.

⑦ Function indicator: Indicates if unit is in Headphone Amplifier (HP) mode and Pre-amplifier (DAC) mode.

⑧ BIAS Control switch.

⑨ BIAS Control indicator: indicates if unit is in High BIAS and Standard BIAS mode.

⑩ Remote control IR sensor.

⑪ 4.4mm balanced headphone output.

⑫ 6.35mm (1/4 inch) unbalanced headphone output.

⑬ 4-PIN balanced headphone output.

⑭ Volume control knob.
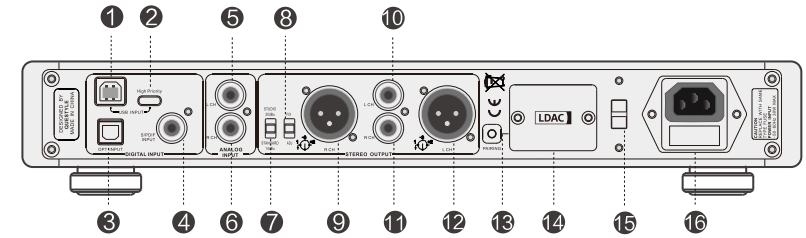
① USB Type B input.

② USB Type C input.

③ Optical input.

④ S/PDIF input.

⑤ Analog RCA input – left channel.

⑥ Analog RCA input – right channel.

⑦ Pre-amp output mode switch: toggle between Studio and Standard mode.

⑧ Pre-amp output volume switch: toggle between Fixed and Adjustable mode. When switched to Fixed mode, the output volume of the pre-amp will be set to the maximum volume level, and the volume control knob on the front of the CMA Fifteen will not affect the volume. See more in the "Output Connection Options" section.

⑨ Balanced XLR pre-amp output – right channel.

⑩ Unbalanced RCA pre-amp output – left channel.

⑪ Unbalanced RCA pre-amp output – right channel.

⑫ Balanced XLR pre-amp output – left channel.

⑬ Bluetooth pairing button.

⑭ Bluetooth antenna housing. In order to maintain Bluetooth connectivity, please DO NOT place metal or other shielding materials near this antenna housing.

⑮ 220V/110V voltage switch: before use, please ensure this is switched to match the local voltage of your region.

⑯ AC power socket.

L CH+ LOW STANDARD

L CH- LOW STANDARD

R CH+ LOW STANDARD

R CH- LOW STANDARD

Headphone Amplifier Gain Control

Headphone amplifier gain control switch: the default setting is "Standard" mode. When using in-ear monitors (IEMs), please set this to "Low" mode. Before use, ensure all four switches are set to the same setting.
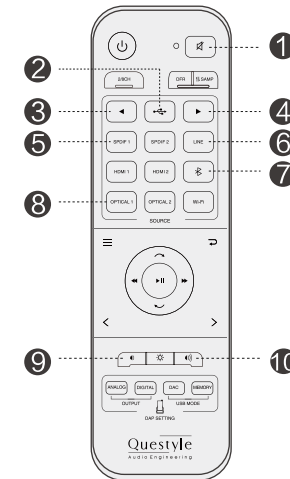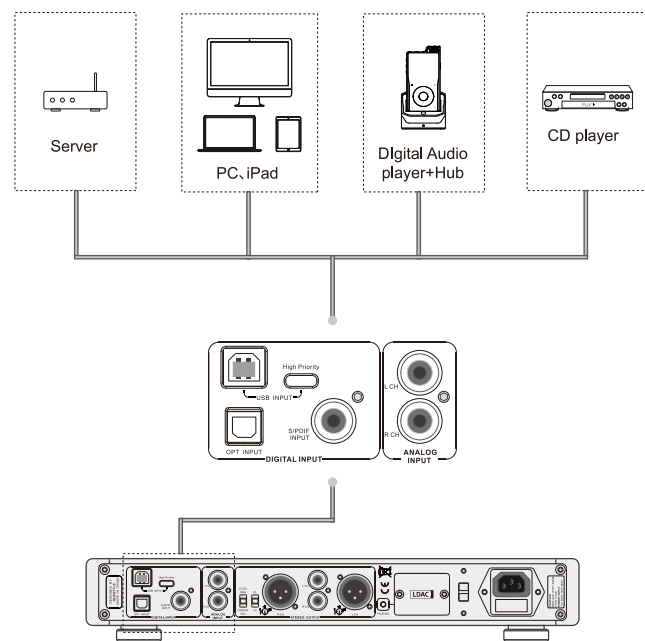

① Mute

② Select USB input

③ Source selection backward

④ Source selection forward

⑤ Select S/PDIF input

⑥ Select Analog input

⑦ Select Bluetooth input

⑧ Select Optical input

⑨ Volume down

⑩ Volume up

Note: This is a universal Questyle remote that can be used with any Questyle product equipped with an IR sensor. When used with the CMA Fifteen, some of the buttons on this remote (including the power switch, playback control, and DAP settings buttons) will not function.

How to Match with CMA Fifteen

1. Digital Input

The CMA Fifteen has optical, S/PDIF and USB (Type B & C) inputs. Digital audio signals from your computer, music server, CD reader, Blu-ray reader, etc can be sent to CMA Fifteen using these input ports. (Note: The CMA Fifteen supports USB Audio Class 2.0 standard driver). The core patented technologies of Current Mode Amplification, True DSD, and 3X Clock Asynchronous Transmission allow the CMA Fifteen to have outstanding performance from its DAC and pre-amplifier.

Server

PC、iPad

DIgital Audio player+Hub

CD player

High Priority

USB INPUT

OPT INPUT

S/PDIF INPUT

DIGITAL INPUT

L CH

R CH

ANALOG INPUT

NOTE

You do not have to install a USB driver on music server if it supports Linux UAC 2.0.

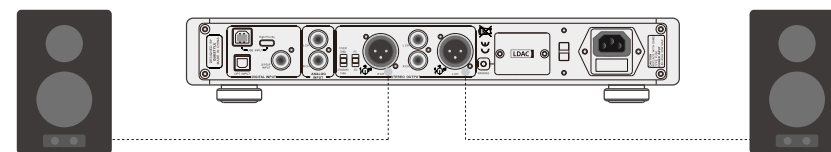### 2. When used as a DAC & Headphone Amplifier

When the Function Switch on the front of the unit is switched to HP AMP (Digital-to-Analog Converter & Headphone Amplifier) mode, the CMA Fifteen can be used simultaneously as a DAC and Headphone Amplifier. The CMA Fifteen has a 4.4mm balanced headphone jack, a 6.35mm unbalanced headphone jack, and a 4-PIN balanced headphone jack on the front of the unit.

6.35mm headphone jack

Fully balanced with
4.4mm headphone jack

Fully balanced with
4-PIN headphone jack
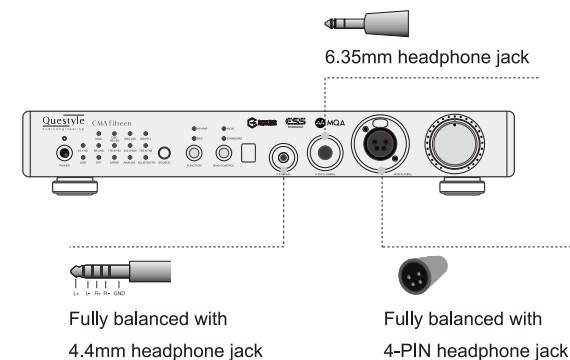
NOTE

① Please note the CMA Fifteen only supports one headphone at a time. Do not plug more than one headphone into the unit at the same time.

② The CMA Fifteen has built-in DC output protection, which will automatically cut off the output and protect your headphones if a malfunction or error is detected in the system.

③ The CMA Fifteen has Headphone Amplifier Gain control switches on the bottom of the unit. The default setting of the gain control is "Standard" mode. When using in-ear monitors (IEMs), please set this to "Low" mode. Before use, ensure all four switches are set to the same setting.

3. When used as a DAC & Pre-amplifier, or a Pre-amplifier only

When the Function Switch on the front of the unit is switched to DAC (Digital-to-Analog Converter & Pre-Amp) mode, the CMA Fifteen can be used as a pre-amplifier for your sound system. The CMA Fifteen has two unbalanced RCA outputs and two balanced XLR outputs on the back of the device.

Set the Pre-amp output volume switch on the back of the unit to either FIX (Fixed) or ADJ (Adjustable) depending on your system setup:
· FIX mode is used for connecting the CMA Fifteen to amplifiers or other pre-amps with their own volume control function. When switched to FIX mode, the output volume of the pre-amp will be set to the maximum volume level, and the volume control knob on the front of the CMA Fifteen will not affect the volume.
· ADJ mode is used for connecting the CMA Fifteen to active speakers or power amplifiers that do not have their own volume control function. When switched to ADJ mode, the output volume of the pre-amp can be controlled using the volume control knob on the front of the CMA Fifteen.

Set the pre-amp output mode switch to either Standard or Studio:
· In Standard mode, the maximum output level will be 14dBu.
· In Studio mode, the maximum output level will be 20dBu.

4. BLUETOOTH Wireless Receiving
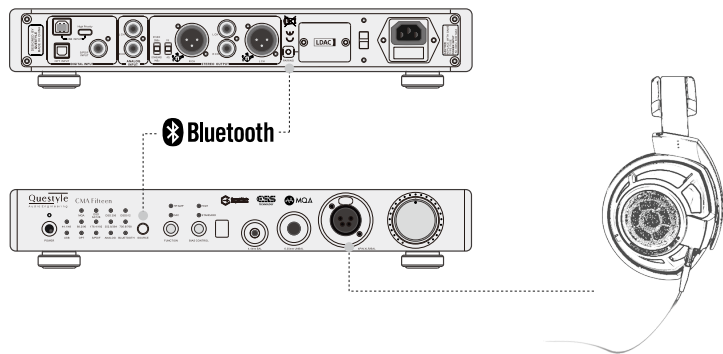
The CMA Fifteen has the Bluetooth wireless receiving feature. To pair with your device
· On the front of the CMA Fifteen, set the "Source" to Bluetooth.
· On the back of the CMA Fifteen, press and hold the pairing switch for 3 seconds. The Bluetooth source indicator on the front will flash rapidly to indicate pairing mode. Once paired, the indicator light on the front will remain steadily illuminated.
· You can connect the CMA Fifteen to headphones, speakers, or other output devices as normal.

5. MQA (Master Quality Authenticated)
MQA is an award-winning British technology that delivers the sound of the original master recording. The master MQA file is fully authenticated and is small enough to stream or download.

The CMA Fifteen includes MQA technology, which enables you to play back MQA audio files and streams, delivering the sound of the original master recording.

The LED glows green or blue to indicate that the unit is decoding and playing an MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material. It glows blue to indicate itis playing an MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner.

USB Driver Installation and JRiver/Foobar Setup

USB Driver Installation and JRiver/Foobar Setup are the same on Questyle Audio's desktop devices (including CMA400i, CMA600i, SHB2, CMA Twelve and CMA Fifteen). Visit Questyle Audio website (www.questyle.com) and click "Download" - "User Manual" -"USB Driver Installation and JRiver/Foobar Setup" to view detailed instructions.

Specifications

Entire Device

AC Input	100-120V / 220-230V (switchable)
Power Consuming	<30W
Size	330*200*55mm (jacks are not included)

Input / output parameters

Digital Input	USB x 2 (Including a high-priority USB Type-C interface and a USB Type-B interface.) PCM: 44.1khz-768kHz/32bit DSD: Native DSD 512; DOP DSD 256 MQA: Full / Core decoder USB input supports UAC 2.0. It supports Win XP, Vista, Win7, Win8, Win10, Linux, MAC OS and other operating systems. It also can be connected to smartphones supporting OTG audio output. Note: Windows system under Win10 will need to install the ASIO driver developed by Questyle. Win10 system supports DOP DSD 256 without installing the driver, and supports Native DSD 512 with the driver installed. Optical Input x 1: PCM: 44.1kHz~192kHz/24bit Coaxial Input x 1: PCM: 44.1kHz~192kHz/24bit Bluetooth Input x 1: SBC, AAC, LDAC (At the highest level of 96kHz/24bit, 990kps/909kps)
Analog Input	RCA x 1, 2Vrms standard level
Headphone Amplifier Output Interface	6.35mm standard headphone jack x1 4-PIN balanced headphone jack x1 4.4mm balanced headphone jack x1 Note: You can set High/Standard bias through the BIAS switch on the front panel of the headphone amplifier, and set Standard/Low gain through the four Gain switches on the bottom of the headphone amplifier.
Pre-Amp Output Interface	XLR x 1 ; RCA x 1 Note:The output level can be set by Standard/Studio switch and volume can be controlled by ADJ/FIX switch on the rear panel.

Pre-Amp Output Specs

Max Analog Output Amplitude	RCA: 2V (Standard), Studio mode output up to14dBu XLR: 4V (Standard), Studio mode output up to 20dBu
THD+N	RCA: 0.0004% ; XLR: 0.0003%
Frequency Response	±0.2dB (DC-22kHz)@48kHz/24bit)
SNR	RCA: >116dB ; XLR: >119dB

Headphone Amplifier Output Specs

Max Output Power	6.35mm: 188mW @ 300Ω 1.5W @ 32Ω 4.4mm balanced / XLR 4-PIN balanced: 765mW @ 300Ω 2W @ 32Ω
THD+N	<0.0003% @300Ω ; <0.001%@32Ω
Frequency Response	±0.2dB (DC-22kHz)@48kHz/24bit
SNR	6.35mm: >117dB ; 4.4mm balanced / XLR 4-PIN balanced: >120dB

Note: Audio specs are based on the test result from Audio Precision AP2722 in Questyle lab, not the theoretical values or the theoretical values of DAC chip.

Cautions

1. Do not use the device in high temperature or humidity.

2. Unplug power from your CMA Fifteen during inclement weather or when the device will not be used for an long duration of time.

3. Do not cover your CMA Fifteen with anything.

4. Only use the specified or manufacturer-supplied power cord with your CMA Fifteen.

5. Clean your CMA Fifteen periodically with a piece of dry cloth or with special detergent.

6. If your CMA Fifteen malfunctions, please contact your dealer or after-sales support.

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